

Serial No.: 09/867,064

Attorney's Docket No.: 10559/468001/P10673

Amendments to the Specification:

Please replace the title with the following replacement title:

MULTITHREAD SIGNALING USING A CLEAR UPON READING REGISTER

Please replace the paragraph beginning at page 16, line 1 with the following amended paragraph:

The bit set and bit clear operations on the bit vector, can occur in either scratchpad RAM or SRAM. If the scheduler is communicating between program threads on the same microengine 22, the bit vector can be stored in the register set because each context can read the other context's registers. For example, an empty or not empty status of each output queue is ~~support~~ supported by a bit vector in internal scratchpad memory. When a receive program thread enqueues a packet, the receive program thread uses the scratch pad bit-set command to set a bit in the queue status bit vector to indicate the queue now has at least one entry. The transmit arbiter scans 270 the queue bit vector for non empty queues (e.g., bit<sub>x</sub> set) to determine packets that are ready to be transmitted. When removing 272 a packet from a queue for transmit if the queue empties 274, the transmit arbiter issues 276 a bit-clear command to the corresponding bit of the queue bit vector.